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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,233	09/17/2003	Andrew D. Park	122/18	3364
36829	7590	05/27/2005	EXAMINER CHAMBERS, TROY	
SCHWARTZ LAW FIRM, P.C. 6100 FAIRVIEW ROAD SUITE 530 CHARLOTTE, NC 28210			ART UNIT 3641	PAPER NUMBER

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/664,233	PARK ET AL.	
	Examiner	Art Unit	
	Troy Chambers	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-18 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 6, 7 and 16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/22/04.
2. Applicant's election with traverse of the Species requirement in the reply filed on 10/22/04 is acknowledged. The traversal is on the ground(s) that the search would not be a serious burden on the Examiner. This is not found persuasive because the restriction was proper and in accordance with the MPEP. The applicant declaring the various species obvious variants of one another may withdraw the restriction.
3. The requirement is still deemed proper and is therefore made FINAL.

### **Incorporation by Reference**

4. The attempt to incorporate subject matter into this application by reference to CO/PD 00-3D is ineffective because: in any application which is to issue as a U.S. patent, essential material may not be incorporated by reference to (1) patents or applications published by foreign countries or a regional patent office, (2) non-patent publications, (3) a U.S. patent or application which itself incorporates "essential material" by reference, or (4) a foreign application.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 8-10, 13-17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of the mil-std disclosed by the applicant. With respect to claims 1, 8, 13 and 14, Park discloses a hard armor composite comprising: a rigid ceramic (col. 6, line 49) boron carbide (col. 6, line 54) facing 51; and ballistic fabric backing 25 carried by the facing. The ballistic fabric backing comprises an array of high-performance fibers (col. 2, ll. 11-15) as shown in Figs. 3 and 4. Park defines "high performance" fibers as having a tensile strength greater than 7 gpd (col. 1, ll. 45-47). The denier per filament (dpf) is disclosed as being 1.5. The composite is inherently capable of defeating threats from the selected groups claimed. However, Park does not disclose an areal density being not greater than 5.1 psf. The mil-std requires all SAPI sizes to have a uniform nominal areal density of 5.1 pounds per square feet or less. At the time of the invention, one of ordinary skill in the art would find it obvious to configure the composite armor of Park to have the areal density claimed by the applicant. The suggestion/motivation for doing so would have been to keep in compliance with the mil-std for various sized SAPIs.

3. With respect to claim 2, refer to Figs. 3 and 4.

4. With respect to claim 3, refer to col. 4, ll. 48-54.

5. With respect to claims 4, 5 and 15, Park discloses a means for adhering disclosed in col. 6, ll. 51-53.

6. With respect to claims 9 and 20, refer to col. 2, ll. 11-15.

7. With respect to claims 10 and 17, refer to col. 6, line 53 that refers to a rigid ceramic plate.
8. Claims 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of the mil-std disclosed by the applicant. In the admitted mil-std the applicant discloses that all SAPI sized have a uniform nominal areal density of 5.1 pounds per square foot or less. Park discloses a SAPI save for the thickness and combined "weight". At the time of the invention, one of ordinary skill in the art would find it obvious to provide the thickness and "weight" claimed by the applicant. The suggestion/motivation for doing so would have been to keep in compliance with the mil-std for various sized SAPIs.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited on form PTO-892 are cited as of interest to show similar hard armor composites.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Troy Chambers whose telephone number is (571) 272-6874. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Carone, can be reached at (571) 272-6875.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.



MICHAEL J. CARONE  
SUPERVISORY PATENT EXAMINER